Cost vs. Revenue Analysis for a LEC Providing Service to an End User of an ISP Served by Another LEC

 Exhibit EP-01

Description of Analysis

When Ameritech's intrastate rates for local telephone service were established, they were based on the costs of a local call, which typically averages about 3.5 minutes in duration. As customers have increasingly changed the use of local phone lines to include access to the Internet on a dial-up basis, the underlying costs have also changed. In particular, the duration of a typical Internet session in Ameritech's exchanges averages about 26 minutes, not 3.5 minutes.

Because the Commission has exempted this interstate access traffic from access charges, Ameritech and other Local Exchange Carriers ("LECs") have been limited to billing this interstate access traffic "as if" it were a local call, at intrastate rates. To determine the impact of this exemption on such Internet-bound traffic, Ameritech undertook a revenue and cost analysis. Although the revenues and costs used in this analysis are unique to Ameritech, the outcome would appear to apply in principle to all LECs.

Ameritech's analysis is simple and conservative. It demonstrates that a Local Exchange Carrier ("LEC") does not receive revenues sufficient to cover its costs when it provides local exchange service to end users who use the service for Internet access. This revenue shortfall occurs even when the end user purchases a "second line" for Internet access, and even when the LEC is not required to make any compensation payment to an interconnected secondary LEC which serves the ISP. It should be noted that this is not a jurisdiction-specific analysis but rather a non-jurisdictional analysis looking at overall costs and revenues. Some of the costs and revenues identified are clearly intrastate (e.g. 75% of the local loop), some are clearly interstate (e.g. 25% of the local loop), and others are currently subject to varying interpretations (e.g. the use of traffic-sensitive switching and transport facilities).

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This analysis is based on an end user obtaining from a LEC a Residential "Second Line" (a Non-Primary Residence line under FCC rules) or additional business line to be used exclusively for Internet access, via an ISP that is served by a different (secondary) LEC. No additional services or features (such as Call Waiting or Caller-ID) are presumed to be purchased by the end user for the network access line, as such services and features have no value on a line used exclusively for Internet access.

In this analysis, it is assumed that the end user places 90 calls per month accessing the Internet, with an average duration of 26 minutes per call, resulting in a total of 39 hours per month online. The average call duration of 26 minutes is consistent with recent studies of Internet access traffic performed by Ameritech's network operations organization. The total online usage of 39 hours per month by an end user is consistent with Ameritech's understanding of current ISP industry standards, such as 15 to 20,000 minutes of use incoming per modem line and an average of eight end users per incoming modem line (39 hours * 8 users = 18,720 minutes per month per line). This number of hours may in fact be conservative for the type of user that would have a second or additional line used solely for Internet access.

This analysis identifies only the costs incurred by the end user's LEC in providing service to the end user over its own network facilities, and does not include as a cost any potential payment of inter-carrier compensation to the secondary LEC serving the ISP.

The costs incurred by the end user's LEC are then compared to the revenues that would be received by that LEC for provision of the service under the applicable state and federal tariffs in each of the five Ameritech states. Ameritech's tariffs are used as the basis for determining the revenues. Costs and revenues are based on 82% Residence traffic and 18% Business traffic for Internet access, consistent with recent studies of Internet access

traffic performed by Ameritech's network operations organization. In every case the revenues received are less than the costs incurred.

Cost of Service

There are two main service cost elements.

(1) The Network Access Line ("NAL"), which includes the local loop connecting the end user's premises to the local central office building and the connection to the switch within that central office. The cost of the NAL is a fixed monthly cost for facilities dedicated to the end user.

(2) The use of network switching and transport facilities starting with the originating switch and continuing over interoffice transport and tandem switching facilities to the point where the calls are handed-off by the end user's LEC to the secondary LEC (at the secondary LEC's switch location which serves the ISP). The cost of the use of these network switching and transport facilities is a variable (traffic-sensitive) cost.

The costs assigned to each of these cost elements are determined by employing the most current costs from state commission proceedings addressing the wholesale cost (i.e., "TELRIC" type costs) of interconnection services and unbundled network elements. In three states (Illinois, Michigan, and Wisconsin) the costs used are commission-approved costs that are reflected in wholesale tariff rates for interconnection and unbundled network elements. In the other two states (Indiana and Ohio), the costs employed are those most recently filed by Ameritech in compliance with commission orders in ongoing dockets, and are generally consistent with the cost levels in the other three states.

The diagram on page 9 pictorially depicts the following description of how the costs were assembled for this analysis.

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The cost for the Network Access Line consists of three parts.

(1) The cost of a basic voice-grade unbundled loop. In the case of states with geographically deaveraged loop costs, a melded cost based on overall residential demand distribution is used. For example, in Illinois, the meld for a Residence Network Access Line is 2% in Area A (the heart of the downtown Chicago business district), 35% in Area B (primarily the remainder of Chicago and certain adjacent suburbs), and 63% in Area C (the remainder of the state, including most of the Chicago suburban area). The meld for a Business line in each state is different than that for a residence line (e.g., the business line meld in Illinois is 11% Area A, 28% Area B, and 61 % Area C), resulting in a different overall cost for a business line.

(2) The cost of a basic voice-grade line-side unbundled local switch port.

(3) The cost of a cross-connection from the loop to the switch port.

The cost for the use of network switching and transport also consists of three parts, though the combining of those three parts is somewhat more complex than it is for the Network Access Line due to the traffic-sensitive nature of the cost. It should be noted that the tandem and transport portions of the cost, though more complex to determine, represent only a very small part of the overall cost.

(1) The first cost element is the cost of end office switching, per minute of use. This cost includes both the use of the switching "matrix" and the use of the trunk port where the interoffice trunking is connected to the end office switch.

(2) The cost of interoffice transport per minute of use from originating LEC switch serving the end user to secondary LEC switch serving the ISP is calculated by employing the multi-element interoffice transport costs. For this analysis, the overall cost is based on a mixture of direct trunk and tandem routing, with 50% of the traffic identified as tandem routed, consistent with current inter-carrier traffic flows from Ameritech's end offices. One set of transport terminations and twenty miles of

transport facilities mileage are included for the direct trunk route. Two sets of transport terminations (one for each end-office-to-tandem segment) and a total of twenty miles of transport facilities mileage (for both segments together) are included for the tandem route.

(3) The cost of tandem switching per minute of use is the third cost element. This cost includes both the use of the switching "matrix" and the use of the incoming and outgoing trunk ports where the interoffice trunking is connected to the tandem switch. It is applied to only 50% of the traffic, consistent with the application described for interoffice transport above.

In addition to the wholesale costs identified as described above, retailing costs are added to produce the total cost. Retailing costs are determined using the state commission-approved wholesale discount factor for resale service in each state. These factors are designed to identify the net difference between the cost of providing a service on a retail basis as opposed to a wholesale basis. The inverse of the discount percentage applied to retail rates represents the equivalent markup to wholesale rates required to reach the retail rate level. For example, if the wholesale discount is 20% (i.e. $wholesale = 0.8 * retail$), then the markup for retailing costs on top of wholesale costs is 25% (i.e. $retail = wholesale * \frac{1}{0.8}$). Thus, if the wholesale cost determined as described above were $20 per line, and the wholesale resale discount in the state were 20%, the total cost would be $20*1.25, or $25 (just as in the reverse case, the application of a 20% discount factor to a $25 retail rate would produce a wholesale rate of $20). In states where two discount factors have been mandated by the state commission (with the application depending on whether or not Operator Services and Directory Assistance are provided as part of the resold service), the lower of the two factors has been used in this analysis, resulting in a lower identification of retailing costs. In all states the Network Access Line cost computed in this study is less than four times the applicable federal EUCL charge for a "Non-Primary Residence" or "Multiline Business" line, and the EUCL charge represents

less than 25% of the unseparated cost of a Network Access Line due to line termination costs being assigned to the interstate jurisdiction based on a Dial Equipment Minutes factor of less than 25%.

Revenues Received for Service

Revenues received are calculated based on Ameritech's state and federal tariff rates for residential local exchange service in the five states, applied to the same service demand quantities discussed above. In two cases, the rates have been adjusted to reflect subsidy amounts that are included in the tariff rates but for which the revenues are passed on to the subsidy-receiving organization and are not retained by Ameritech, as noted below. Applicable rates (and adjustments) for each state are as follows.

For Illinois, the rates are the monthly residence and business Network Access Line rates (a demand-weighted meld of geographically deaveraged rates, as discussed above in relation to local loop costs), the federal EUCL charge for Non-Primary Residence and Multiline Business lines, intrastate PICC charges, and usage charges for the 90 calls per month. The residence usage rates are per-call rates, with an average computed using the historical residential mix of peak and off-peak messages and the application of volume discounts to the resulting revenues per the tariff. The business usage rates are per-minute rates, with neither off-peak or volume discounts applicable.

For Indiana, the rates are the monthly residence and business Network Access Line rates (a demand-weighted meld of geographically deaveraged rates, as discussed above in relation to local loop costs), the federal EUCL charge for Non-Primary Residence and Multiline Business lines, and intrastate EUCL and PICC charges. There are no usage charges for either the residential line or the business line, as the Network Access Line rate used in this analysis allows for unlimited monthly calls at no additional charge.

For Michigan, the rates are the monthly residence and business Network Access Line rates (a demand-weighted meld of geographically deaveraged rates, as discussed above in relation to local loop costs), the federal EUCL charge for Non-Primary Residence and Multiline Business lines, intrastate EUCL and PICC charges, and business-only usage charges for the 90 calls per month. The business usage rates are per-call rates, with neither off-peak or volume discounts applicable. There are no usage charges for the residential line, because the 90 calls do not exceed the free call allowance of 400 calls included with the Network Access Line. The residence and business Network Access Line rates were also adjusted to remove a Dual Party Relay Service (TDD to voice) subsidy of $0.23 embedded in those tariff rates which goes to fund the operation of the Dual Party Relay Service.

For Ohio, the rates are the monthly residence and business Network Access Line rates (for business only, a demand-weighted meld of geographically deaveraged rates, as discussed above in relation to local loop costs), the federal EUCL charge for Non-Primary Residence and Multiline Business lines, intrastate PICC charges, and business-only usage charges for the 90 calls per month. The business usage rates are per-call rates, with neither off-peak or volume discounts applicable. There are no usage charges for the residential line, because the Network Access Line rate used in this analysis includes the flat-rate calling package which allows for unlimited monthly calls at no additional charge.

For Wisconsin, the rates are the monthly residence and business Network Access Line rates, the federal EUCL charge for Non-Primary Residence and Multiline Business lines, intrastate PICC charges, and usage charges for the 90 calls per month. The residence and business usage rates are per-call rates, with neither off-peak or volume discounts applicable for the specified call volume. The residence and business Network Access Line rates were also adjusted to remove a Technology for Educational Achievement ("TEACH") subsidy of $0.74 embedded in those tariff rates which goes to fund the operation of the TEACH program. TEACH is legislatively-mandated program in

Wisconsin funded by increases in basic telephone rates that is used to pay for telecommunication improvements on University of Wisconsin System campuses, and for making data lines and video links available to schools and libraries in the state.

Certain other revenues related to local exchange Network Access Lines were identified and were specifically excluded from this analysis because they are targeted to cover specific costs that are outside the bounds of this analysis and are therefore not available to cover the costs identified in this analysis. These revenues exclusions include the following:

Interstate PICC charges are assessed on each Network Access Line, but the revenues from these PICC charges are used to subsidize below-cost (capped at $3.50) interstate EUCL charges for primary residence and single line business lines. Those PICC revenues are therefore not available to cover the costs identified in this analysis.

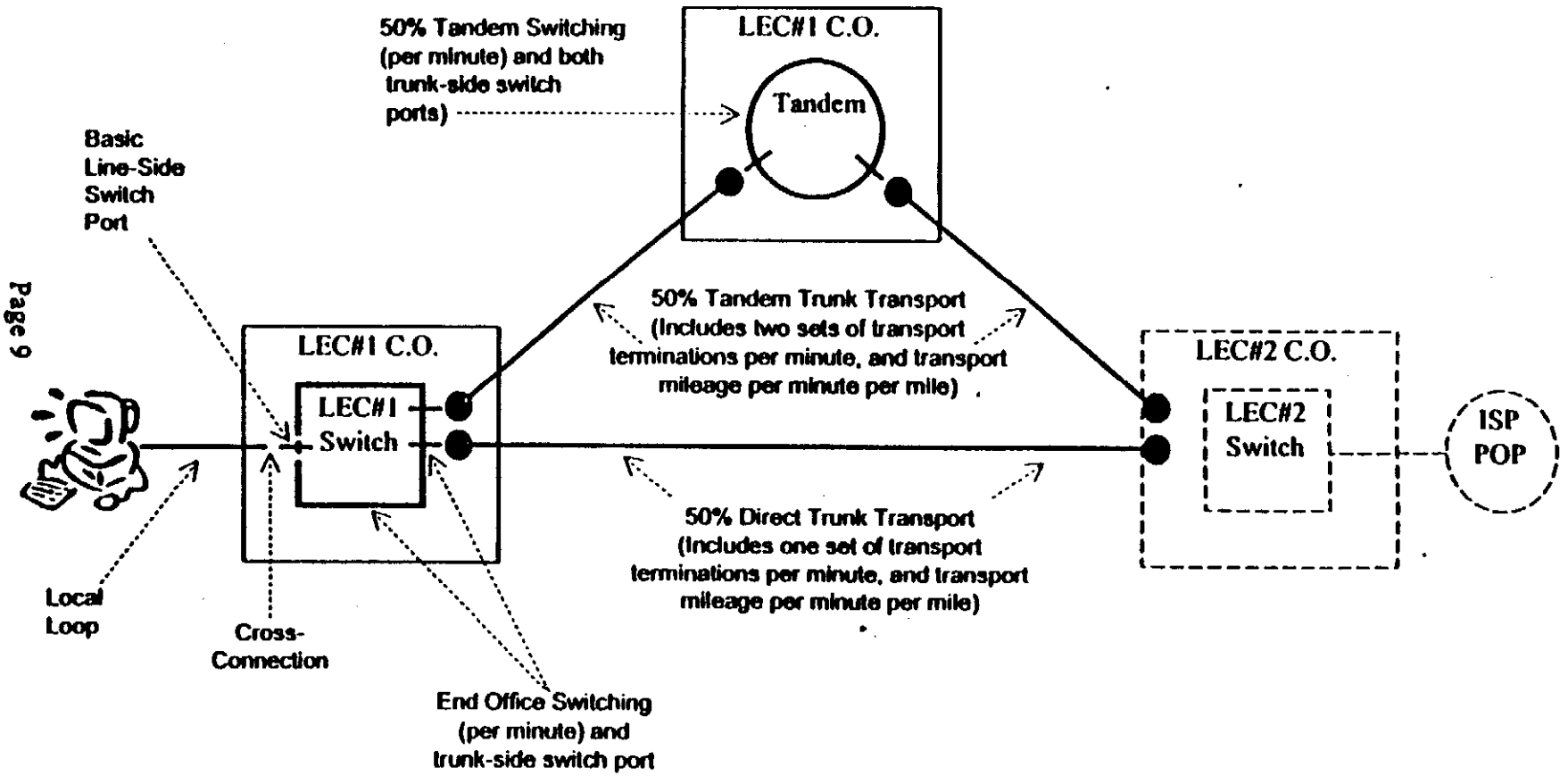
The recently authorized Number Portability cost recovery charges are assessed on most Network Access Lines, but revenues from those are specifically designed to cover the identified incremental cost of providing number portability which is not included in the cost portion of this analysis.

Custom calling services are often ordered for primary residential exchange lines, but no custom calling features are needed for a line used exclusively for Internet access, and second lines in general are typically ordered without such features at a far higher percentage than are primary lines. It would therefore not be appropriate to include any custom calling revenues in this analysis.

Results of the Analysis

The results of the analysis for each of the five states are shown on pages 10-14. In every case the revenues received are less than the costs incurred.

Cost Elements for a LEC Providing Service to an End User of an ISP Served by Another LEC



Cost vs. Revenue Analysis for a LEC Providing Service to an End User of an ISP Served by Another LEC

ILLINOIS

COST INPUT VALUES:

$9.71	Basic Residence Voice Grade Loop Cost
$5.01	Basic Residence Voice Grade Switch Port Cost
$9.21	Basic Business Voice Grade Loop Cost
$5.01	Basic Business Voice Grade Switch Port Cost
$0.14	Basic Voice Grade Cross-Connect Cost
$0.003746	End Office Switching Cost per MOU
$0.001072	Tandem Switching Cost per MOU
$0.000201	Transport Termination Cost per MOU
$0.000013	Transport Minute/Mile Cost per MOU
50%	Percent Calls Tandem Routed
20	Avg Transport miles per call
$0.004844	(computed) Network cost per Minute for LEC Serving End User
19.40%	Wholesale Resale Discount Percentage (Retailing Costs)

REVENUE INPUT VALUES:

$7.66	Monthly Rate for basic Residence Access Line
$5.40	Monthly Rate for Non-Primary Residence EUCL (FCC)
$0.06	Monthly Rate for Non-Primary Residence EUCL and PICC (State)
$10.09	Monthly Rate for basic Business Access Line
$5.40	Monthly Rate for Multiline Business EUCL (FCC)
$0.06	Monthly Rate for Multiline Business EUCL and PICC (State)
$0.0411	Per-Call Rate for Residence Local Call to ISP
$0.4150	Per-Call Rate for Business Local Call to ISP

OTHER INPUT VALUES:

26	Average Minutes per ISP Call
39	Online Hours per Month for End User
90	(computed) Calls per Month for End User
18%	Percentage of ISP Access Traffic Originating from Business End Users

RESULTS:

$18.32	Monthly Fixed Cost Per End User for LEC Serving End User
$14.06	Monthly Usage Cost Per End User for LEC Serving End User
$13.55	Monthly Fixed Revenues Per End User for LEC Serving End User
$9.76	Monthly Usage Revenues Per End User for LEC Serving End User
($4.77)	Monthly Fixed Surplus or (Shortfall) Per End User for LEC Serving End User
($4.30)	Monthly Usage Surplus or (Shortfall) Per End User for LEC Serving End User
($9.07)	Monthly Total Surplus or (Shortfall) Per End User for LEC Serving End User

Cost vs. Revenue Analysis for a LEC Providing Service to an End User of an ISP Served by Another LEC

INDIANA

COST INPUT VALUES:

$8.33	Basic Residence Voice Grade Loop Cost
$5.34	Basic Residence Voice Grade Switch Port Cost
$8.32	Basic Business Voice Grade Loop Cost
$5.34	Basic Business Voice Grade Switch Port Cost
$0.14	Basic Voice Grade Cross-Connect Cost
$0.004097	End Office Switching Cost per MOU
$0.000307	Tandem Switching Cost per MOU
$0.000102	Transport Termination Cost per MOU
$0.000005	Transport Minute/Mile Cost per MOU
50%	Percent Calls Tandem Routed
20	Avg Transport miles per call
$0.004504	(computed) Network cost per Minute for LEC Serving End User
21.46%	Wholesale Resale Discount Percentage (Retailing Costs)

REVENUE INPUT VALUES:

$12.56	Monthly Rate for basic Residence Access Line
$6.07	Monthly Rate for Non-Primary Residence EUCL (FCC)
$1.50	Monthly Rate for Non-Primary Residence EUCL and PICC (State)
$43.07	Monthly Rate for basic Business Access Line
$6.31	Monthly Rate for Multiline Business EUCL (FCC)
$8.20	Monthly Rate for Multiline Business EUCL and PICC (State)
$0.000	Per-Call Rate for Residence Local Call to ISP
$0.000	Per-Call Rate for Business Local Call to ISP

OTHER INPUT VALUES:

26	Average Minutes per ISP Call
39	Online Hours per Month for End User
90	(computed) Calls per Month for End User
18%	Percentage of ISP Access Traffic Originating from Business End Users

RESULTS:

$17.58	Monthly Fixed Cost Per End User for LEC Serving End User
$13.42	Monthly Usage Cost Per End User for LEC Serving End User
$26.88	Monthly Fixed Revenues Per End User for LEC Serving End User
$0.00	Monthly Usage Revenues Per End User for LEC Serving End User
$9.30	Monthly Fixed Surplus or (Shortfall) Per End User for LEC Serving End User
($13.42)	Monthly Usage Surplus or (Shortfall) Per End User for LEC Serving End User
($4.12)	Monthly Total Surplus or (Shortfall) Per End User for LEC Serving End User

Cost vs. Revenue Analysis for a LEC Providing Service to an End User of an ISP Served by Another LEC

MICHIGAN

COST INPUT VALUES:

$12.60	Basic Residence Voice Grade Loop Cost
$2.27	Basic Residence Voice Grade Switch Port Cost
$12.48	Basic Business Voice Grade Loop Cost
$2.27	Basic Business Voice Grade Switch Port Cost
$0.17	Basic Voice Grade Cross-Connect Cost
$0.004053	End Office Switching Cost per MOU
$0.000698	Tandem Switching Cost per MOU
$0.000260	Transport Termination Cost per MOU
$0.000006	Transport Minute/Mile Cost per MOU
50%	Percent Calls Tandem Routed
20	Avg Transport miles per call
$0.004912	(computed) Network cost per Minute for LEC Serving End User
19.96%	Wholesale Resale Discount Percentage (Retailing Costs)

REVENUE INPUT VALUES:

$12.89	Monthly Rate for basic Residence Access Line
$5.62	Monthly Rate for Non-Primary Residence EUCL (FCC)
$2.95	Monthly Rate for Non-Primary Residence EUCL and PICC (State)
$13.18	Monthly Rate for basic Business Access Line
$5.62	Monthly Rate for Multiline Business EUCL (FCC)
$2.85	Monthly Rate for Multiline Business EUCL and PICC (State)
$0.000	Per-Call Rate for Residence Local Call to ISP
$0.0853	Per-Call Rate for Business Local Call to ISP

OTHER INPUT VALUES:

26	Average Minutes per ISP Call
39	Online Hours per Month for End User
90	(computed) Calls per Month for End User
18%	Percentage of ISP Access Traffic Originating from Business End Users

RESULTS:

$18.77	Monthly Fixed Cost Per End User for LEC Serving End User
$14.36	Monthly Usage Cost Per End User for LEC Serving End User
$21.49	Monthly Fixed Revenues Per End User for LEC Serving End User
$1.38	Monthly Usage Revenues Per End User for LEC Serving End User
$2.72	Monthly Fixed Surplus or (Shortfall) Per End User for LEC Serving End User
($12.98)	Monthly Usage Surplus or (Shortfall) Per End User for LEC Serving End User
($10.26)	Monthly Total Surplus or (Shortfall) Per End User for LEC Serving End User

Cost vs. Revenue Analysis for a LEC Providing Service to an End User of an ISP Served by Another LEC

OHIO

	COST INPUT VALUES:
$8.48	Basic Residence Voice Grade Loop Cost
$4.63	Basic Residence Voice Grade Switch Port Cost
$8.25	Basic Business Voice Grade Loop Cost
$4.63	Basic Business Voice Grade Switch Port Cost
$0.15	Basic Voice Grade Cross-Connect Cost
$0.003815	End Office Switching Cost per MOU
$0.000660	Tandem Switching Cost per MOU
$0.000155	Transport Termination Cost per MOU
$0.000006	Transport Minute/Mile Cost per MOU
50%	Percent Calls Tandem Routed
20	Avg Transport miles per call
$0.004498	(computed) Network cost per Minute for LEC Serving End User
20.29%	Wholesale Resale Discount Percentage (Retailing Costs)
	REVENUE INPUT VALUES:
$14.40	Monthly Rate for basic Residence Access Line
$5.97	Monthly Rate for Non-Primary Residence EUCL (FCC)
$0.13	Monthly Rate for Non-Primary Residence EUCL and PICC (State)
$21.42	Monthly Rate for basic Business Access Line
$5.97	Monthly Rate for Multiline Business EUCL (FCC)
$0.13	Monthly Rate for Multiline Business EUCL and PICC (State)
$0.000	Per-Call Rate for Residence Local Call to ISP
$0.0834	Per-Call Rate for Business Local Call to ISP
	OTHER INPUT VALUES:
26	Average Minutes per ISP Call
39	Online Hours per Month for End User
90	(computed) Calls per Month for End User
18%	Percentage of ISP Access Traffic Originating from Business End Users
	RESULTS:
$16.58	Monthly Fixed Cost Per End User for LEC Serving End User
$13.20	Monthly Usage Cost Per End User for LEC Serving End User
$21.76	Monthly Fixed Revenues Per End User for LEC Serving End User
$1.35	Monthly Usage Revenues Per End User for LEC Serving End User
$5.18	Monthly Fixed Surplus or (Shortfall) Per End User for LEC Serving End User
($11.85)	Monthly Usage Surplus or (Shortfall) Per End User for LEC Serving End User
($6.67)	Monthly Total Surplus or (Shortfall) Per End User for LEC Serving End User

Cost vs. Revenue Analysis for a LEC Providing Service to an End User of an ISP Served by Another LEC

WISCONSIN

	COST INPUT VALUES:
$10.90	Basic Residence Voice Grade Loop Cost
$3.71	Basic Residence Voice Grade Switch Port Cost
$10.90	Basic Business Voice Grade Loop Cost
$6.25	Basic Business Voice Grade Switch Port Cost
$0.19	Basic Voice Grade Cross-Connect Cost
$0.004241	End Office Switching Cost per MOU
$0.000704	Tandem Switching Cost per MOU
$0.000188	Transport Termination Cost per MOU
$0.000014	Transport Minute/Mile Cost per MOU
50%	Percent Calls Tandem Routed
20	Avg Transport miles per call
$0.005155	(computed) Network cost per Minute for LEC Serving End User
19.40%	Wholesale Resale Discount Percentage (Retailing Costs)
	REVENUE INPUT VALUES:
$5.75	Monthly Rate for basic Residence Access Line
$5.65	Monthly Rate for Non-Primary Residence EUCL (FCC)
$0.30	Monthly Rate for Non-Primary Residence EUCL and PICC (State)
$14.85	Monthly Rate for basic Business Access Line
$5.65	Monthly Rate for Multiline Business EUCL (FCC)
$0.30	Monthly Rate for Multiline Business EUCL and PICC (State)
$0.050	Per-Call Rate for Residence Local Call to ISP
$0.100	Per-Call Rate for Business Local Call to ISP
	OTHER INPUT VALUES:
26	Average Minutes per ISP Call
39	Online Hours per Month for End User
90	(computed) Calls per Month for End User
18%	Percentage of ISP Access Traffic Originating from Business End Users
	RESULTS:
$18.93	Monthly Fixed Cost Per End User for LEC Serving End User
$14.97	Monthly Usage Cost Per End User for LEC Serving End User
$13.34	Monthly Fixed Revenues Per End User for LEC Serving End User
$5.31	Monthly Usage Revenues Per End User for LEC Serving End User
($5.59)	Monthly Fixed Surplus or (Shortfall) Per End User for LEC Serving End User
($9.66)	Monthly Usage Surplus or (Shortfall) Per End User for LEC Serving End User
($15.25)	Monthly Total Surplus or (Shortfall) Per End User for LEC Serving End User